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AUTHOR Powers, Donald E.; Lehman, James
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ABSTRACT

Many factors influence prospective graduate students' choice of a graduate school, including the chances of gaining admission. This study examines the perceptions of a representative sample of Graduate Record Examinations (GRE) test takers who were asked to indicate their views of the importance of eight widely considered factors in graduate admissions. Candidates' perceptions were compared for each of the factors and for subgroups of candidates determined by sex, ethnicity, age, and intended graduate major field. Overall, candidates perceived undergraduate grades as the single most important factor in graduate admissions. This held true for each of the candidate subgroups considered in the analysis. Recommendations and one's undergraduate field were rated as somewhat less important than undergraduate grades, and GRE Aptitude Test scores even less important. GRE Advanced Test scores were perceived as considerably less important than any other factor. Analyses by subgroup revealed that candidates' perceptions differed markedly according to the graduate field they intended to enter. There were relatively few large differences between the perceptions of men and women or between younger and older students. Black candidates and white candidates, however, exhibited quite different patterns of perceptions. The implications of these differences are discussed, and possible courses of action are suggested. (Author/PN)

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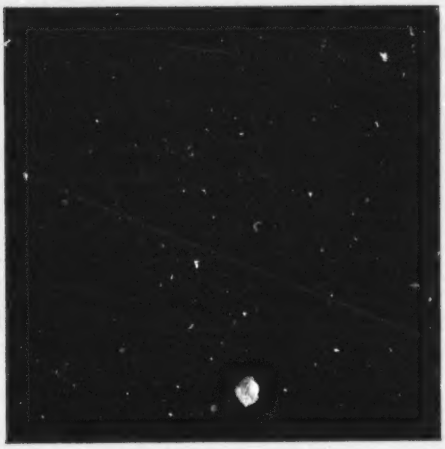

GRE

GRADUATE RECORD EXAMINATIONS

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GRE CANDIDATES' PERCEPTIONS OF THE IMPORTANCE OF GRADUATE ADMISSION FACTORS

Donald E. Powers
Educational Testing Service

James Lehman
University of California
at Los Angeles

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EDUCATIONAL TESTING SERVICE, PRINCETON, NJ

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GRE Candidates' Perceptions of the Importance of Graduate Admission Factors

Donald E. Powers
Educational Testing Service

James Lehman*
University of California
at Los Angeles

GRE Board Research Report GREB No. 81-2R

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*This paper was begun while the junior author was a graduate summer fellow at Educational Testing Service.

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Abstract

Many factors influence prospective graduate students' choice of a graduate school, including the chances of gaining admission. This study examines the perceptions of a representative sample of GRE test takers who were asked to indicate their views of the importance of eight widely considered factors in graduate admissions. Candidates' perceptions were compared for each of the factors and for subgroups of candidates determined by sex, ethnicity, age, and intended graduate major field.

Overall, candidates perceived undergraduate grades as the single most important factor in graduate admissions. This held true for each of the candidate subgroups considered in the analysis. Recommendations and one's undergraduate field were rated as somewhat less important than undergraduate grades, and GRE Aptitude Test scores even less important. GRE Advanced Test scores were perceived as considerably less important than any other factor.

Analyses by subgroup revealed that candidates' perceptions differed markedly according to the graduate field they intended to enter. There were relatively few large differences between the perceptions of men and women or between younger and older students. Black candidates and White candidates, however, exhibited quite different patterns of perceptions, especially in their judgments of the importance of GRE test scores, which Black candidates viewed as being more influential than did White candidates. The implications of the differences between the perceptions of Black candidates and White candidates are discussed, and possible courses of action are suggested.

GRE Candidates' Perceptions of the Importance of Graduate Admission Factors

Who goes to graduate school, and where, involves decisions both by graduate institutions and by prospective graduate students. Institutions are faced with determining both the bases on which offers of admission are made and the exact mechanics of making these offers. Graduate school candidates may be involved in an even more complex series of decisions that includes (a) which field to enter, (b) where to apply, and (c) if multiple offers are made, which to accept. Many factors undoubtedly underlie the choice of a graduate school, including, for example, (a) the prestige of the university and the quality of the program or department, (b) the cost of attending and the availability of financial aid, and (c) the requirements for both degree attainment and admission (Hartnett, 1979).

As Hartnett suggested, different candidates probably assign quite different degrees of importance to each of these (and other) factors. They also appear to have varying degrees of information about each of them, which is obtained with varying degrees of difficulty. Hartnett found that prospective graduate students seem to have "no serious difficulty" (p. 24) obtaining information about application procedures and admission requirements, which is available from many information sources such the general and specific discipline guides, catalogs, and other materials sent to prospective students. However, it is apparently much more difficult to obtain information about the admission process itself, especially about the specific selection criteria established by individual departments. Despite this apparent difficulty, prospective graduate students consider the chances of being admitted to be an important factor in the choice of a graduate school (Baird, 1973).

Views of the importance of particular factors in the graduate admission process diverge rather widely. For example, despite the repeated message from test sponsors (and others) that test scores are but one element in the total admissions picture (Educational Testing Service, 1974-81), many critics of standardized testing still believe, and would have the general public believe, that admission test scores are, if not the sole factor, at least the primary determinant in admissions to undergraduate, graduate, and professional schools (Nairn,1980). A more realistic view is that test scores play a much less prominent role in admissions at both the undergraduate level (Hartnett & Feldmesser, 1980) and the graduate level (Baird, 1982) than is often presumed.

The purpose of this study was to explore GRE candidates' perceptions of the importance of several widely considered admission factors and to compare the perceptions of these factors for several major subgroups of candidates.

Methods

As part of a study of the effects of special test preparation on GRE analytical scores (Powers & Swinton, 1982), a sample of June 1980 test registrants (N = 6,600) was surveyed about their preparation for the GRE Aptitude Test. Among the questions asked was the following:

> For the particular graduate field you plan to enter, how much emphasis do you think graduate schools place on each of the following factors in determining admissions?
>
> A. GRE Aptitude Test verbal score
> B. GRE Aptitude Test quantitative score
> C. GRE Aptitude Test analytical score
> D. GRE Advanced Test score
> E. Undergraduate grades
> F. Undergraduate major field
> G. Academic reputation of undergraduate college
> H. Recommendations

The responses were on a four-point scale with the following values: 1 = hardly any or none, 2 = a little, 3 = some, 4 = a lot. Of the 6,600 initial registrants, 5,107 subsequently received test scores. Of these, 3,986 returned completed or partially completed questionnaires. A total of 2,751 of these answered the question presented above and also completed the background information questions asked of all registrants. Because of their very small numbers, non-Black ethnic minority candidates were excluded from the study, resulting in a further reduction in the sample (N = 2,573) upon which all analyses were based.

Repeated measures analyses of variance were computed, with ratings of the importance of each of the eight admission factors as dependent variables. Independent variables were sex, race (Black or White), age (less than 30 years old or 30 or older), and intended graduate major area (biological sciences, education, humanities, physical sciences, and social sciences). A complete list of the disciplines included under each of these major areas can be found in Wild (1981).

Results

Description of the Sample

As stated above, the final study sample consisted of 2,573 GRE test-takers from the June 1980 GRE Aptitude Test administration. Table 1 compares the study sample with all 1979-80 GRE

test takers in terms of ethnicity, sex, age, intended graduate field, and GRE Aptitude Test scores.* The study sample was relatively similar in most respects to the total GRE test-taking population, but some differences were apparent. The sample used here had somewhat greater proportions of White, female, and older (30 or older) candidates as well as slightly greater percentages of candidates who intended to pursue graduate study in the biological sciences, the social sciences, and education. Average GRE Aptitude Test scores were not widely different for the two groups, except for the substantially higher GRE analytical scores of candidates in the study sample (546.9 vs. 508.4). This difference arose from the study sample's participation in the study of the effects of special preparation on GRE analytical scores, which were increased substantially as a result of the preparation (Powers & Swinton, 1982). (It should be noted that, as a result of several studies, the analytical section of the GRE Aptitude Test was modified in 1981 so that it no longer contains two item types that were determined to be susceptible to special preparation.)

Total Sample Profile

Table 2 shows for each of the eight admission factors the average ratings for each of five groups of intended graduate majors and for the total sample. Undergraduate grades were rated as the most important factor, followed by undergraduate field and recommendations. The reputation of the undergraduate college was rated as the fourth most important factor, followed closely by GRE Aptitude Test scores, with GRE verbal scores rated slightly higher than quantitative and analytical scores. GRE Advanced Test scores were seen as far less important than any other factor, although there was more variation (less agreement) about the importance of this factor than any other. A plurality of candidates (39.4%) thought graduate schools place little or no emphasis on Advanced Test scores, while 22.3 percent thought these scores received "a lot" of emphasis. Advanced Test scores were available for less than 20 percent of the sample, suggesting that for most students GRE Advanced Test scores were not an admissions requirement.

Although these total sample ratings are informative, they do not convey the complexity of differences in the profiles of various subgroups. Table 2 shows different profiles of ratings for each of the five broad classifications of intended graduate major fields. These differences are more easily seen

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*Tables and figures begin on page 11.

in Figure 1, which suggests some similarity among major fields with respect to the rank ordering of the eight factors. The clear exception is the considerable difference among fields with respect to views of the importance placed on the three Aptitude Test scores. The differences among fields are in the expected directions. For example, social science majors rated GRE verbal scores higher than any other major field group; physical science majors rated GRE quantitative and GRE analytical scores higher than any other group, and verbal scores lower than any other group; and humanities majors rated GRE quantitative scores lower than any other group. More differentiation among groups was apparent for quantitative scores than for verbal or analytical scores.

Profiles by Subgroups

The average perceptions of each subgroup (sex, age, and race) are given in Tables 3, 4, and 5. Women viewed graduate education as very slightly more selective than did men (3.03 vs. 2.99). Black candidates perceived more selectivity than did White candidates (3.21 vs. 3.01), and candidates who were less than 30 years old gave higher average importance ratings than did candidates who were 30 or older (3.05 vs. 2.94).

Table 6 shows the confounding of subgroup memberships (ethnicity, sex, and age) with intended fields of graduate study. When compared with White candidates, Black candidates had disproportionately higher representation in the social sciences and lower representation in the biological and the physical sciences and in the humanities. Women were represented in greater percentages than men in the biological sciences and in education and in a much lower percentage in the physical sciences. Candidates having reached their 30th birthday were underrepresented in the biological and physical sciences and overrepresented in education. The correlation of subgroup membership with graduate field intentions suggested the desirability of comparisons of subgroups within each of the major fields. The descriptive results of these comparisons are shown in Tables 3-5. Figures 2-4 show these comparisons graphically for men and women (Figure 2), candidates less than 30 and candidates 30 or older (Figure 3), and Black candidates and White candidates (Figure 4). Table 7 displays the results of eight separate univariate analyses of variance, one for each of the eight admission factors considered in this study.

The general impression gained from Figure 2 is that males and females exhibit quite similar profiles of ratings within each of the five graduate major fields. The differences across fields are considerably more striking than the differences between sexes within fields. Table 7 shows some significant

higher order interactions that involve sex, but only the academic reputation of the undergraduate school and recommendations were consistently viewed as more important by women than by men in each of the five fields. An observable overall trend in all fields, except the physical sciences, was that women also tended to rate factors associated with undergraduate school (grades, field, and school reputation) as being more important than men did, when compared with men's and women's ratings of the importance of test scores.

Figure 3 shows quite similar profiles for candidates younger than 30 years old and candidates who were 30 or older. Again, differences among fields are much more pronounced than are differences between age groups within fields. As with the comparisons between males and females, there were some significant higher order interactions involving age, but, overall, both undergraduate grades and recommendations were rated as significantly ($p < .05$) more important in the admissions process by younger candidates than older ones.

Figure 4 shows considerable dissimilarity between the profiles of Black candidates and White candidates. Again, Table 7 reveals some significant higher order interactions involving race. Overall, however, GRE Aptitude Test scores (verbal, quantitative, and analytical) were rated higher by Black candidates than by White ones. Undergraduate grades were seen as significantly ($p < .001$) less important by Black candidates than by White candidates. However, the significant ($p < .001$) race by field interaction suggested that Black candidates and White candidates differ in assessment of the importance of undergraduate grades according to which graduate field they intend to enter. The significant interaction is attributed primarily to the relatively large disparity between the ratings of grades by Black and White candidates in the biological sciences.

Because of the small numbers of Black students in some fields, particularly the humanities ($N = 7$) and the physical sciences ($N = 8$), the profiles for Black students are not very stable. Concentrating on the three major fields with somewhat greater numbers of Black students, i.e., the biological sciences ($N = 24$), education ($N = 32$), and the social sciences ($N = 69$), the profiles exhibit some similarities. The profiles of Black students in each of these three major fields are generally "flatter" than those of White students in the same fields, suggesting that Black students may differentiate less among the various factors than do White students. In each of the three fields, GRE Aptitude Tests were viewed as more important by Black than by White students, but the factors related to undergraduate education (grades, field, and academic reputation) were rated more nearly equally important by Blacks and Whites.

In the biological sciences, White students gave systematically higher average ratings to each of these undergraduate factors than Black students did.

Table 8, which gives the results of the repeated measures analysis of variance, shows a significant ($p < .05$) race by field by age interaction and a significant ($p < .01$) main effect for field. The analysis also shows a highly significant ($p < .001$) effect for perceptions, indicating that candidates do distinguish among the factors with respect to their importance. Several significant higher order interactions also suggest that various candidate groups have different perceptions of the importance of these factors. Of particular interest are the two highly significant ($p < .001$) two-way interactions of perceptions by race and perceptions by field.

Relationship of Perceptions to Status

Correlations between candidates' perceptions of the importance of each factor and their actual standing on each factor were computed in order to ascertain the relationship between candidates' status on these factors and their responses. These correlations, however, were negligible. The correlations between Aptitude Test scores (verbal, quantitative, and analytical) and perceptions of their importance were .06, .09, and .00, respectively. Advanced Test scores correlated .07 with candidates' ratings of their importance, and the perceived importance of undergraduate grades had a correlation of .14 with candidates' self-reports of undergraduate grade averages.

Summary and Discussion

The general picture one gets from the data analyzed here is that, as a group, GRE candidates do differentiate, with some sophistication, among various admission factors with respect to their importance in the graduate admission process. Prospective graduate students, as well as each subgroup considered in this study, viewed undergraduate grades as carrying more weight than any other single factor. Undergraduate grades were followed closely in perceived importance by the particular field of undergraduate study and recommendations from unspecified sources. GRE test scores, particularly scores from the Advanced Tests, were seen as carrying substantially less weight than other factors. These results are generally consistent with Baird's (1973) findings, based on information obtained from prospective graduate students nearly 10 years earlier.

Although GRE Aptitude Test scores were generally seen as less important than other factors, especially those associated

with undergraduate education, they did show more variability among groups of intended graduate majors than any other factors. For example, candidates who intended to pursue studies in the physical sciences saw GRE quantitative scores as being considerably more important than verbal scores; intended humanities majors, on the other hand, had much different views of the differential importance of verbal and quantitative scores. In general, the different groups of intended majors perceived each of the three Aptitude Test scores as being quite different with respect to the emphasis they received in each field.

When compared within each of five intended fields of graduate study, males and females and younger and older candidates exhibited relatively similar perceptions of the importance of the various admission factors, although some differences were noted. Black candidates and White candiates, however, showed much greater dissimilarity than did subgroups based on sex and age. Black candidates perceived each of the three GRE Aptitude Test scores as more important than did White students. Black candidates also appeared to differentiate less among the various factors than did White candidates.

This finding--of differences between Black candidates and White candidates in the perceived importance of admission factors, especially GRE Aptitude Test scores--may deserve further consideration. The implication of Black candidates' attribution of greater importance to Aptitude Test scores is clear, in light of Black candidates' substantially lower average test scores. Black candidates may rate test scores as more important because they see them as being more instrumental in determining their chances for admission. Hartnett (1979) gave a "not uncommon" informational statement supplied by a graduate department in which the minimum admission standards are given. As Hartnett suggested, such minimum standards are self-explanatory if one's credentials are below the cutoffs. Black candidates, who are more likely than White candidates to be at the margins of admissibility, may therefore see test scores as being more instrumental in the admissions process, a state that may be (unnecessarily) discouraging to Black candidates. Because many graduate schools strive to encourage applications from Black and other minority candidates, perhaps Black candidates should be advised to suspend judgment of the importance of test scores, leaving that judgment to admissions staff. In this way, possibly unrealistic perceptions of the importance of test scores would be less likely to result in lowered aspirations or failure to seek admission. Perhaps the authors of departmentally supplied informational pamphlets should reevaluate the description of minimum standards in order not to discourage minority applicants unnecessarily.

Limitations of this Study

Because this study was based on a rather large sample of candidates, between-group comparisons could be made with a sufficiently high degree of reliability to ensure confidence in the results. However, all results were based on a single question. Hence, the study was limited in the generalizability of its measurement. Seeking the same information in different ways would have helped to establish more precisely respondents' interpretation of the question upon which the reported analyses were based. Other supplementary information, such as respondents' degree of confidence in their perceptions, their assessment of the extent to which the admission factors are equally important for all candidates or candidate subgroups, and the information base from which candidates form their perceptions, would have been useful also.

Conclusion

In summary, despite the apparent lack of any systematic information on the importance of graduate admission factors, candidates do discriminate rather strongly among various admission factors with respect to their importance in the graduate admissions process. However, because only very limited information exists regarding the actual role of each of these factors in graduate admissions, it is not possible to conclude with any degree of certainty whether candidates' perceptions are reasonable ones. Some information obtained from graduate schools (Burns, 1970) suggests that in general the views of candidates do not diverge drastically from "reality." For example, Burns found that the five most important admission criteria were, in descending order of importance, college transcripts, completed application forms, GRE Aptitude Test scores, letters of recommendation from undergraduate faculty, and GRE Advanced Test scores. Except for the reversal of GRE Aptitude Test scores and recommendations, the candidates who were surveyed for the study reported here assigned about the same rankings of importance to the various criteria.

Several studies have attempted to ascertain how admissions personnel integrate information from various sources to arrive at admissions decisions. Such "policy capturing" studies have shed some light on the role of several factors in graduate admissions, but here too the information is limited. Although various factors, most notably GRE scores and undergraduate grades, have been shown to enter predictably in the decisions of graduate admission committees (Dawes, 1971; Schmidt, Johnson, & Gugel, 1978; Wallace & Schwab, 1976), the extant studies of this kind have involved very few graduate departments (usually psychology departments) and are thus very limited in

their generality. The survey of graduate departments proposed by Hartnett (1982) should provide current information on the role of GRE test scores in graduate admissions.

Although we are unable to judge the degree to which the perceptions of GRE candidates as a group correspond with reality, it is clear that Black candidates, more than any other subgroup considered here, have different views of the role of various factors in graduate admissions. Perhaps the nature and the effects of these differences should be studied further. Realistic perceptions would seem important because of the possible involvement of candidates' views in

(a) candidates' application strategies (e.g., in decisions to apply or not to apply);

(b) anxiety related to the factors upon which evaluations are made, especially tests;

(c) decisions regarding how much effort to expend in enhancing one's chances for admission, e.g., in seeking favorable recommendations or in preparing for tests; and

(d) perceptions of fairness, i.e., the extent to which various subgroups perceive themselves as being evaluated on the same factors and with the same degree of emphasis.

Clearly, however, more information on graduate admissions is needed before any determination can be made of the degree to which GRE candidates have realistic perceptions of the role of various graduate admission factors.

Table 1

Comparison of Study Sample with All
1979-80 GRE Test Takers

Characteristic		Study Sample (N=2573)	1979-80 GRE Test Takers* (N=210,749)
Ethnic Group (%)			
Black		5.4	6.7
White		94.6	86.3
Other		0.0[a]	7.1
Sex (%)			
Male		38.6	46.4
Female		61.4	53.6
Age (%)			
Less than 30		71.0	78.3
30 or older		29.0	21.7
Intended Graduate Field (%)			
Biological Sciences		22.9	18.4
Education		20.7	16.1
Humanities		10.9	11.7
Physical Sciences		11.3	13.1
Social Sciences		34.2	29.2
Other and Undecided		0.0[a]	11.6
GRE Aptitude Test Scores			
GRE Verbal	M	496.1	487.4
	SD	113.3	123.4
GRE Quantitative	M	507.3	516.4
	SD	125.1	131.1
GRE Analytical	M	546.9	508.4
	SD	116.1	127.0

*Wild, C. L. A summary of data collected from Graduate Record Examinations test takers during 1979-80 (Data Summary Report #5). Princeton, N.J.: Educational Testing Service, 1981.

[a]Excluded from the study sample.

Table 2

Perceptions, by Intended Graduate Field, of Emphasis Placed on Several Admission Factors

Intended Graduate Major Field	N		Admission Factor: GRE: Verbal	GRE: Quantitative	GRE: Analytical	GRE: Advanced	Undergraduate: Grades	Undergraduate: Field	Undergraduate: Academic Reputation	Recommendations	Average Perception
Biological Sciences	588	M	2.96	3.04	2.93	2.23	3.67	3.51	3.10	3.47	3.11
		SD	.88	.83	.93	1.24	.57	.73	.82	.71	.43
Education	533	M	2.87	2.70	2.63	2.23	3.42	3.16	2.92	3.06	2.87
		SD	.90	.87	.92	1.12	.71	.87	.90	.94	.53
Humanities	280	M	3.08	2.26	2.65	2.26	3.54	3.45	3.06	3.36	2.96
		SD	.91	.92	.91	1.22	.63	.81	.86	.77	.46
Physical Sciences	292	M	2.46	3.22	2.97	2.54	3.58	3.39	2.99	3.10	3.03
		SD	.85	.84	.90	1.20	.62	.79	.87	.85	.45
Social Sciences	880	M	3.21	2.90	2.96	2.32	3.60	3.25	2.96	3.21	3.05
		SD	.82	.89	.91	1.21	.57	.82	.81	.87	.47
Total	2573	M	2.98	2.86	2.85	2.30	3.57	3.33	3.00	3.24	3.02
		SD	.88	.91	.93	1.20	.62	.82	.84	.85	.48

Note. Perceptions were indicated on a four-point scale ranging from 1 = hardly any or none to 4 = a lot.

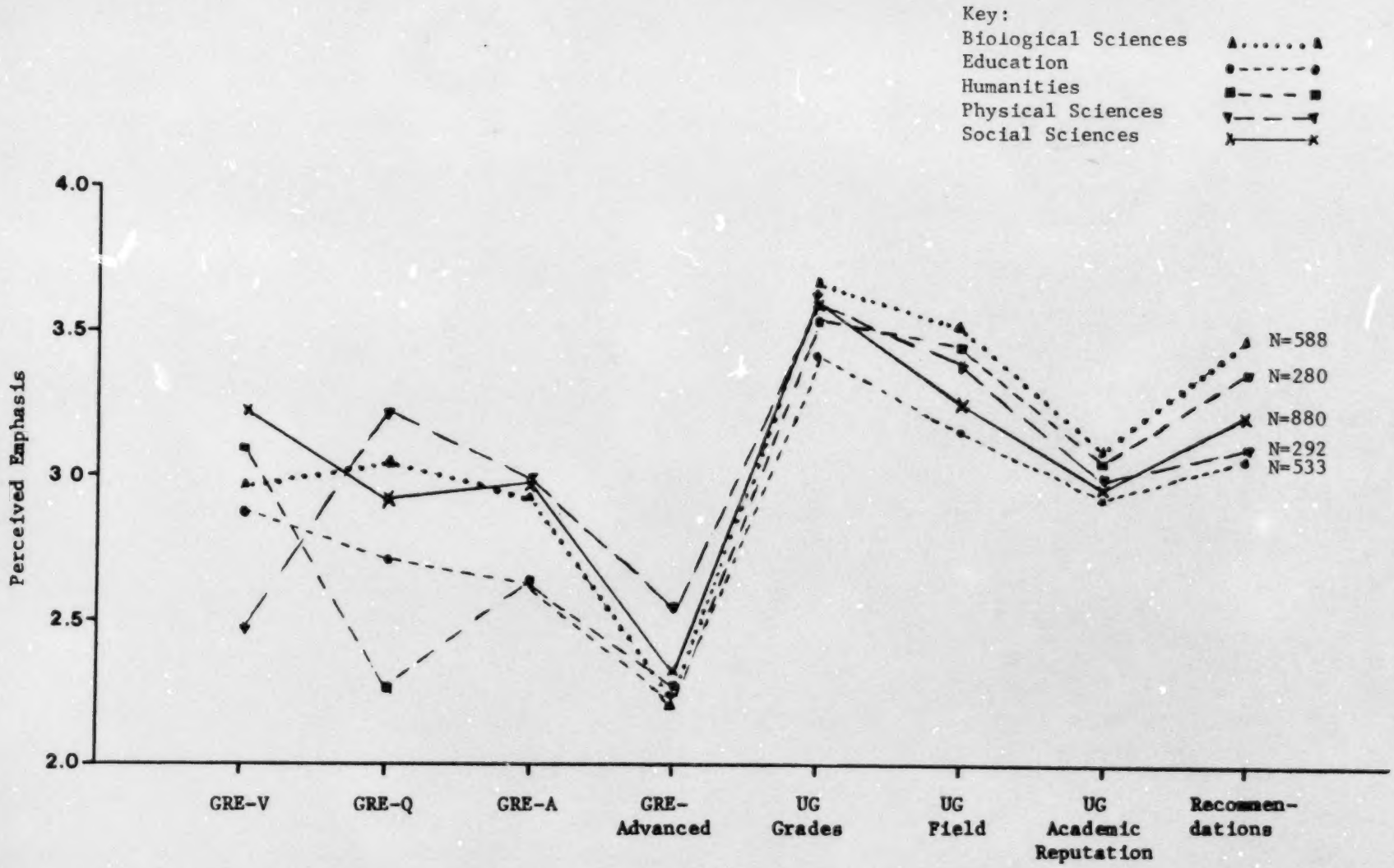


Figure 1. Perceptions, by intended field of graduate study, of the emphasis placed on several admission factors.

Table 3

Perceptions, by Sex and Intended Graduate Major, of Emphasis Placed on Several Admission Factors

Intended Graduate Major Field	N		Admission Factor: GRE: Verbal	GRE: Quantitative	GRE: Analytical	GRE: Advanced	Undergraduate: Grades	Undergraduate: Field	Undergraduate: Academic Reputation	Recommendations	Average Perception
Biological Sciences											
Male	183	M	2.86	3.16	3.01	2.58	3.66	3.38	3.07	3.44	3.14
		SD	.87	.85	.91	1.22	.58	.80	.81	.75	.44
Female	405	M	3.01	2.99	2.89	2.07	3.68	3.57	3.11	3.48	3.10
		SD	.83	.82	.94	1.21	.56	.69	.82	.69	.42
Education											
Male	113	M	2.78	2.72	2.63	2.33	3.34	2.84	2.86	2.87	2.79
		SD	.98	.93	.98	1.08	.77	.90	.91	1.00	.58
Female	420	M	2.89	2.69	2.64	2.21	3.44	3.25	2.94	3.11	2.90
		SD	.88	.85	.91	1.12	.70	.84	.90	.92	.51
Humanities											
Male	118	M	3.04	2.36	2.69	2.17	3.41	3.25	2.93	3.31	2.90
		SD	.85	.92	.89	1.21	.71	.94	.91	.78	.47
Female	162	M	3.11	2.20	2.63	2.33	3.63	3.59	3.15	3.39	3.00
		SD	.95	.92	.92	1.24	.56	.66	.81	.77	.45
Physical Sciences											
Male	228	M	2.44	3.19	2.93	2.55	3.59	3.39	2.96	3.08	3.02
		SD	.86	.86	.93	1.22	.63	.81	.88	.85	.48
Female	64	M	2.53	3.31	3.13	2.50	3.56	3.39	3.13	3.19	3.09
		SD	.82	.75	.77	1.10	.61	.70	.79	.85	.40
Social Sciences											
Male	352	M	3.15	2.95	2.88	2.36	3.55	3.15	2.88	3.08	3.00
		SD	.83	.89	.94	1.19	.62	.83	.82	.93	.48
Female	528	M	3.25	2.87	3.02	2.29	3.63	3.31	3.01	3.30	3.09
		SD	.82	.89	.89	1.23	.54	.81	.79	.81	.47
Total											
Male	994	M	2.88	2.95	2.86	2.42	3.54	3.23	2.94	3.15	2.99
		SD	.90	.92	.94	1.20	.65	.86	.86	.89	.49
Female	1579	M	3.05	2.80	2.85	2.22	3.59	3.39	3.04	3.30	3.03
		SD	.87	.89	.92	1.20	.60	.78	.84	.82	.47

Table 4

Perceptions, by Age and Intended Graduate Major Field, of Emphasis Placed on Several Admission Factors

Intended Graduate Major Field	N		Admission Factor: GRE: Verbal	GRE: Quantitative	GRE: Analytical	GRE: Advanced	Undergraduate: Grades	Undergraduate: Field	Undergraduate: Academic Reputation	Recommendations	Average Perception
Biological Sciences											
< 30	456	M	2.92	3.05	2.92	2.24	3.69	3.51	3.11	3.50	3.12
		SD	.86	.85	.94	1.24	.55	.73	.82	.70	.43
≥ 30	132	M	3.12	3.00	2.94	2.20	3.60	3.51	3.03	3.35	3.09
		SD	.76	.78	.90	1.24	.62	.75	.80	.74	.42
Education											
< 30	302	M	2.85	2.71	2.58	2.21	3.48	3.25	3.01	3.14	2.90
		SD	.88	.84	.90	1.11	.69	.86	.86	.90	.47
≥ 30	231	M	2.88	2.68	2.71	2.27	3.34	3.04	2.81	2.95	2.84
		SD	.93	.91	.95	1.13	.75	.87	.95	.98	.59
Humanities											
< 30	202	M	3.02	2.29	2.65	2.25	3.57	3.44	3.14	3.47	2.98
		SD	.92	.91	.93	1.21	.60	.80	.84	.68	.46
≥ 30	78	M	3.23	2.19	2.67	2.29	3.45	3.47	2.83	3.08	2.90
		SD	.87	.95	.85	1.26	.71	.83	.89	.92	.44
Physical Sciences											
< 30	234	M	2.44	3.20	2.93	2.62	3.60	3.44	3.03	3.21	3.06
		SD	.85	.84	.91	1.18	.60	.73	.84	.79	.44
≥ 30	58	M	2.57	3.29	3.14	2.22	3.50	3.22	2.84	2.67	2.93
		SD	.82	.84	.85	1.23	.71	.99	.95	.96	.54
Social Sciences											
< 30	634	M	3.19	2.92	2.99	2.34	3.61	3.29	2.99	3.30	3.08
		SD	.80	.88	.89	1.21	.56	.79	.79	.81	.45
≥ 30	246	M	3.25	2.87	2.87	2.26	3.57	3.14	2.90	2.98	2.98
		SD	.88	.93	.95	1.22	.61	.88	.86	.97	.52
Total											
< 30	1828	M	2.95	2.88	2.86	2.32	3.60	3.37	3.04	3.33	3.05
		SD	.88	.90	.92	1.20	.59	.79	.82	.79	.46
≥ 30	745	M	3.06	2.80	2.83	2.25	3.48	3.22	2.88	3.02	2.94
		SD	.89	.93	.93	1.20	.68	.88	.89	.95	.53

Table 5

Perceptions, by Race and Intended Graduate Major Field, of Emphasis Placed on Several Admission Factors

Intended Graduate Major Field	N		Admission Factor: GRE: Verbal	GRE: Quantitative	GRE: Analytical	GRE: Advanced	Undergraduate: Grades	Undergraduate: Field	Undergraduate: Academic Reputation	Recommendations	Average Perception
Biological Sciences											
Black	24	M	3.21	3.21	3.46	2.33	3.25	3.17	2.96	3.29	3.11
		SD	.98	.93	.88	1.24	.74	.82	.91	.81	.58
White	564	M	2.95	3.03	2.90	2.22	3.69	3.52	3.10	3.48	3.11
		SD	.84	.83	.93	1.24	.55	.72	.81	.71	.42
Education											
Black	32	M	3.34	3.22	3.22	2.66	3.28	3.31	3.03	3.25	3.16
		SD	.65	.71	.87	1.18	.77	.74	.93	.84	.46
White	501	M	2.84	2.66	2.60	2.21	3.43	3.15	2.91	3.05	2.86
		SD	.90	.87	.91	1.11	.71	.88	.90	.95	.53
Humanities											
Black	7	M	3.00	2.14	2.29	2.43	3.43	3.71	2.71	2.57	2.79
		SD	1.29	.69	.76	1.13	.79	.49	1.25	1.13	.54
White	273	M	3.08	2.27	2.66	2.26	3.54	3.44	3.07	3.38	2.96
		SD	.90	.93	.91	1.23	.63	.81	.85	.75	.46
Physical Sciences											
Black	8	M	3.25	3.75	3.75	2.75	3.50	3.38	3.13	2.88	3.30
		SD	.89	.46	.46	1.16	1.07	1.06	1.13	.99	.43
White	284	M	2.44	3.20	2.95	2.54	3.58	3.39	2.99	3.11	3.03
		SD	.84	.84	.90	1.20	.61	.78	.86	.85	.46
Social Sciences											
Black	69	M	3.54	3.28	3.30	2.81	3.67	3.35	3.13	3.29	3.30
		SD	.61	.68	.67	1.20	.47	.74	.82	.69	.37
White	811	M	3.18	2.87	2.93	2.28	3.59	3.24	2.95	3.20	3.03
		SD	.83	.90	.92	1.21	.58	.83	.80	.88	.48
Total											
Black	140	M	3.39	3.22	3.29	2.67	3.49	3.33	3.06	3.22	3.21
		SD	.76	.77	.79	1.20	.67	.76	.90	.80	.46
White	2433	M	2.96	2.84	2.83	2.28	3.57	3.33	2.99	3.24	3.01
		SD	.89	.91	.93	1.20	.62	.82	.84	.86	.48

Table 6

Description of the Sample by Subgroup Membership and Intended Field of Graduate Study

Intended Field of Graduate Study		Ethnic Group		Sex		Age	
		Black	White	Men	Women	<30	≥30
Biological Sciences	N	24	564	183	405	456	132
	%	17.1	23.2	18.4	25.6	24.9	17.7
Education	N	32	501	113	420	302	231
	%	22.9	20.6	11.4	26.6	16.5	31.0
Humanities	N	7	273	118	162	202	78
	%	5.0	11.2	11.9	10.3	11.1	10.5
Physical Sciences	N	8	284	228	64	234	58
	%	5.7	11.7	22.9	4.1	12.8	7.8
Social Sciences	N	69	811	352	528	634	246
	%	49.3	33.3	35.4	33.4	34.7	33.0
Total	N	140	2433	994	1579	1828	745
	%	100.0	100.0	100.0	100.0	100.0	100.0

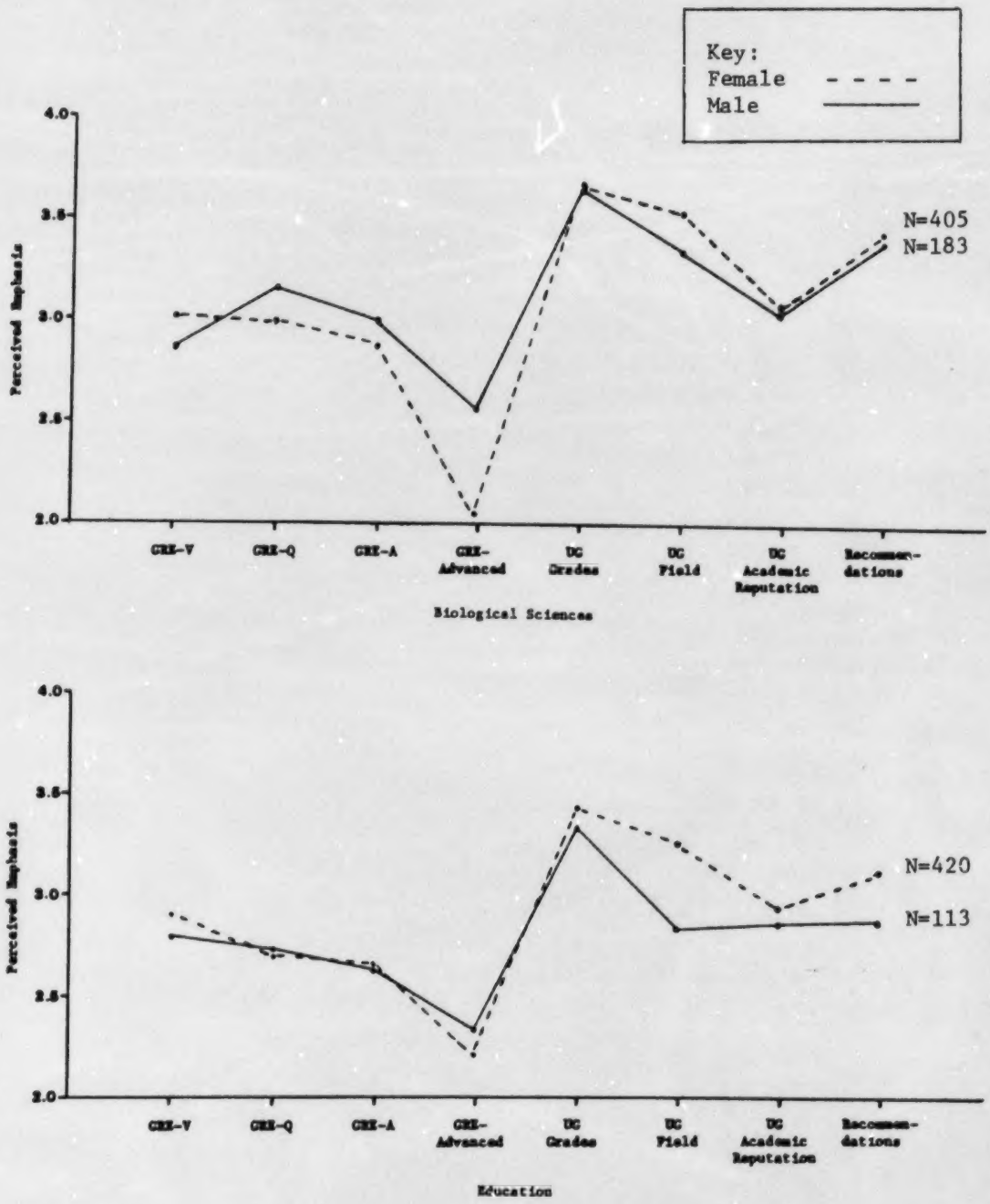
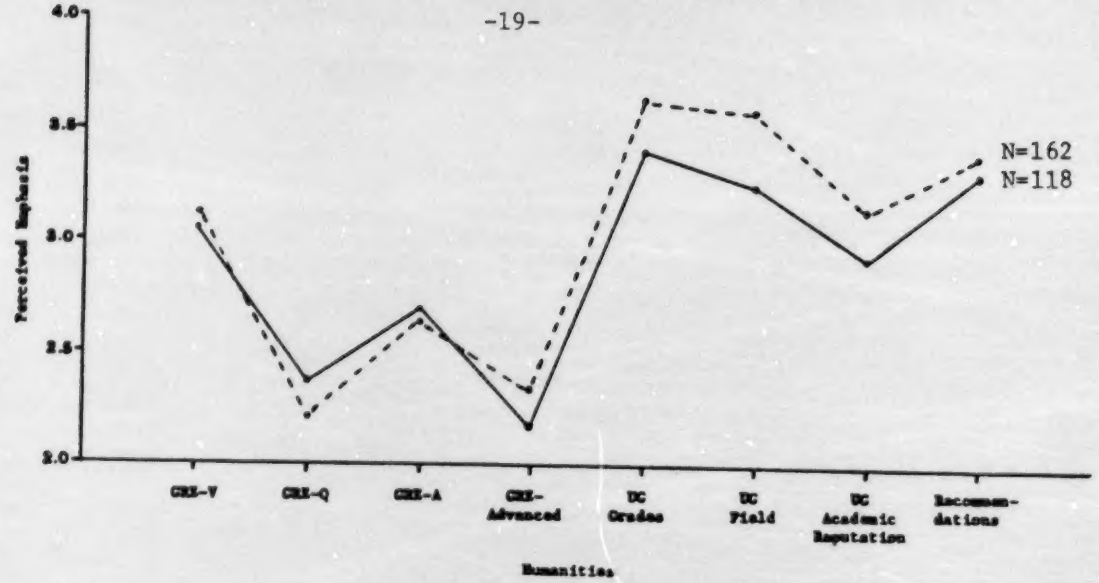
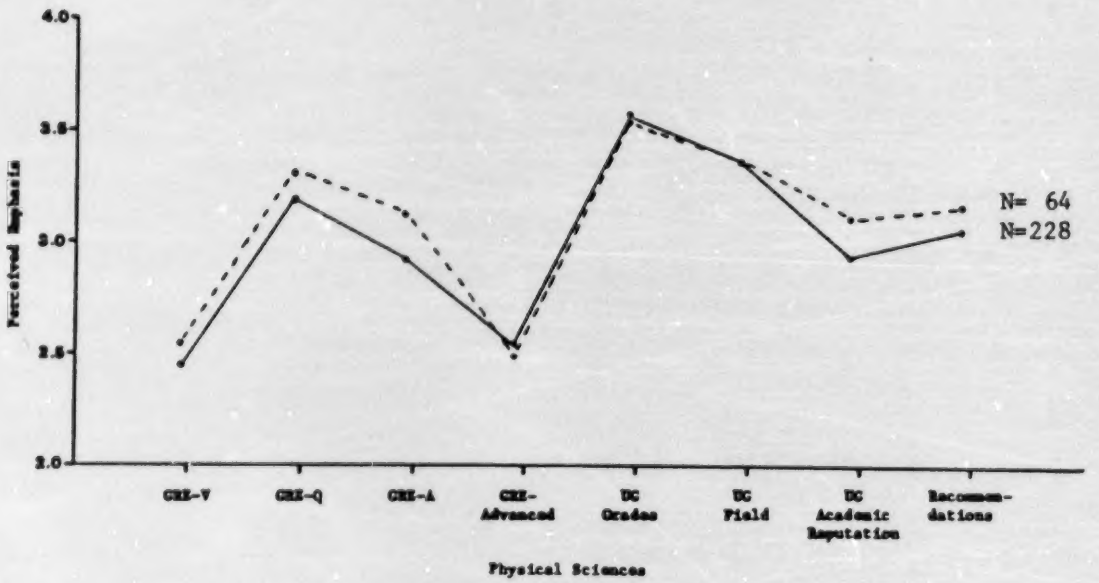


Figure 2. Perceptions, by sex and intended field of graduate study, of the emphasis placed on several admissions factors.





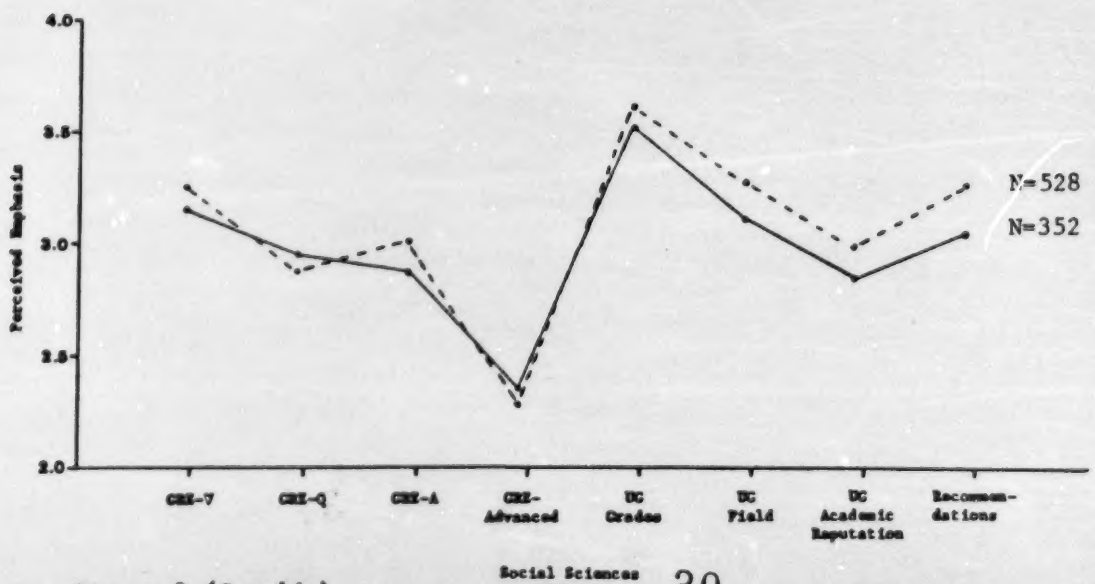


Figure 2 (Cont'd.)

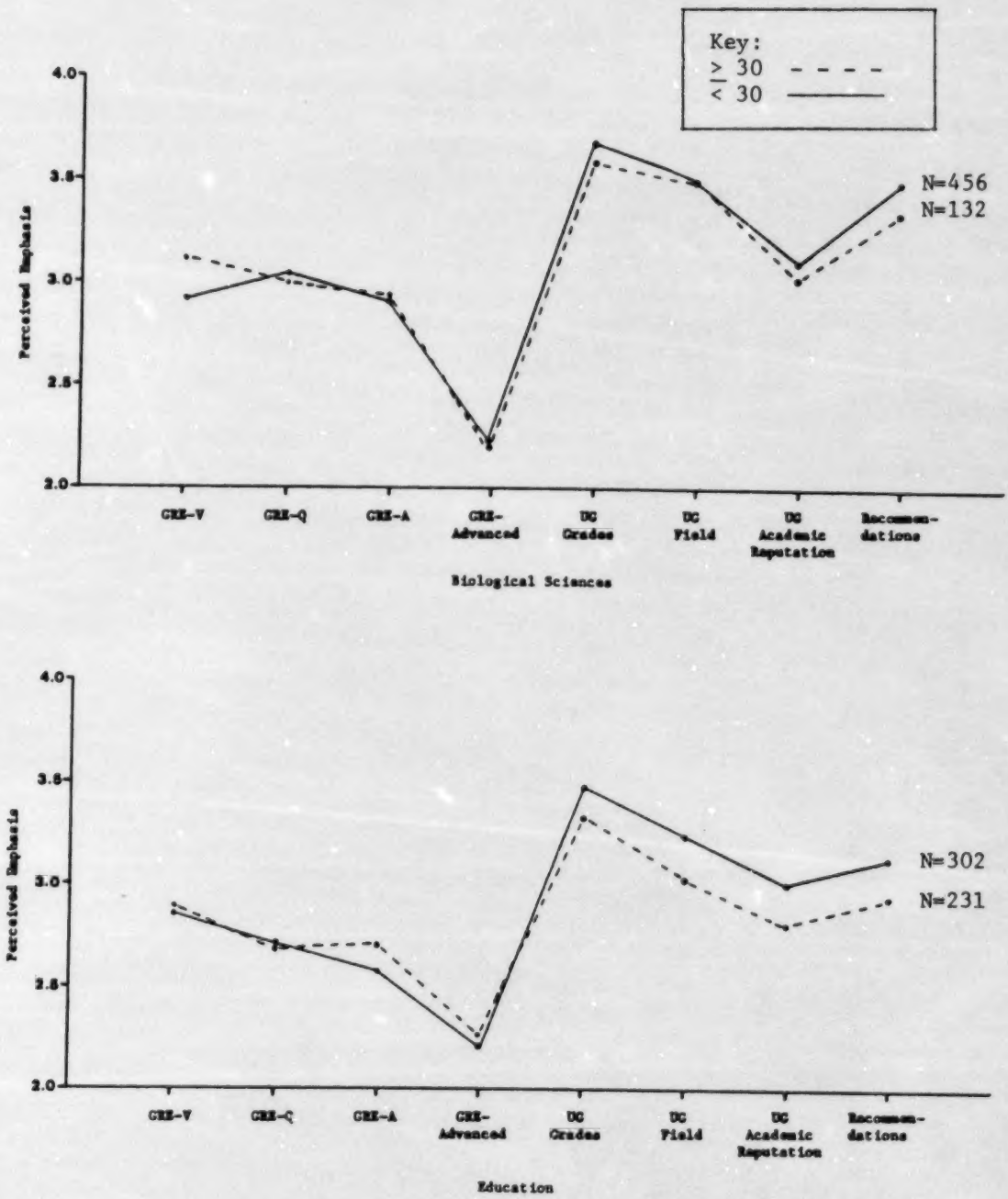
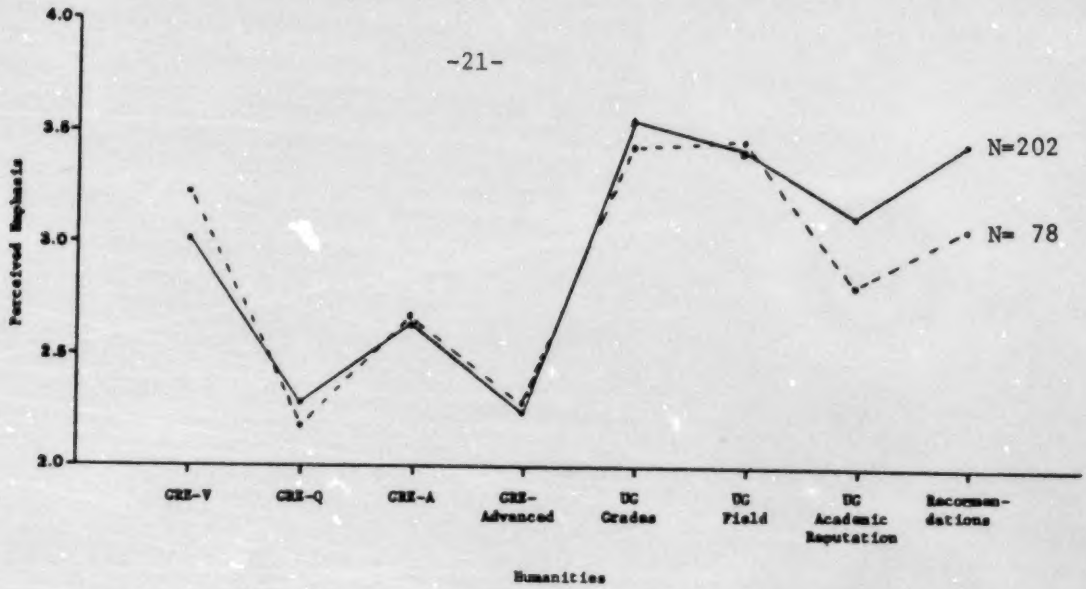
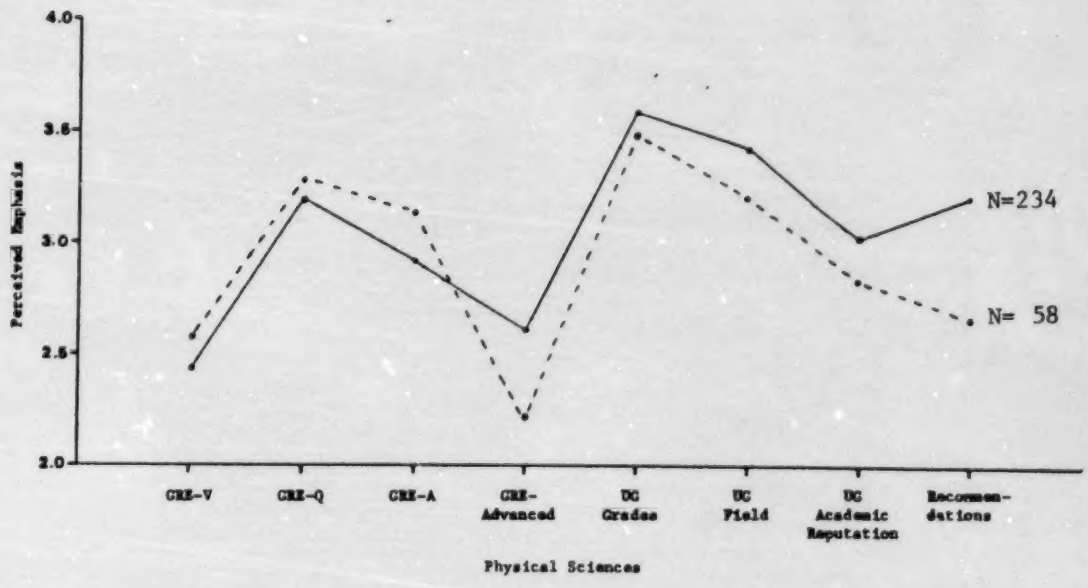


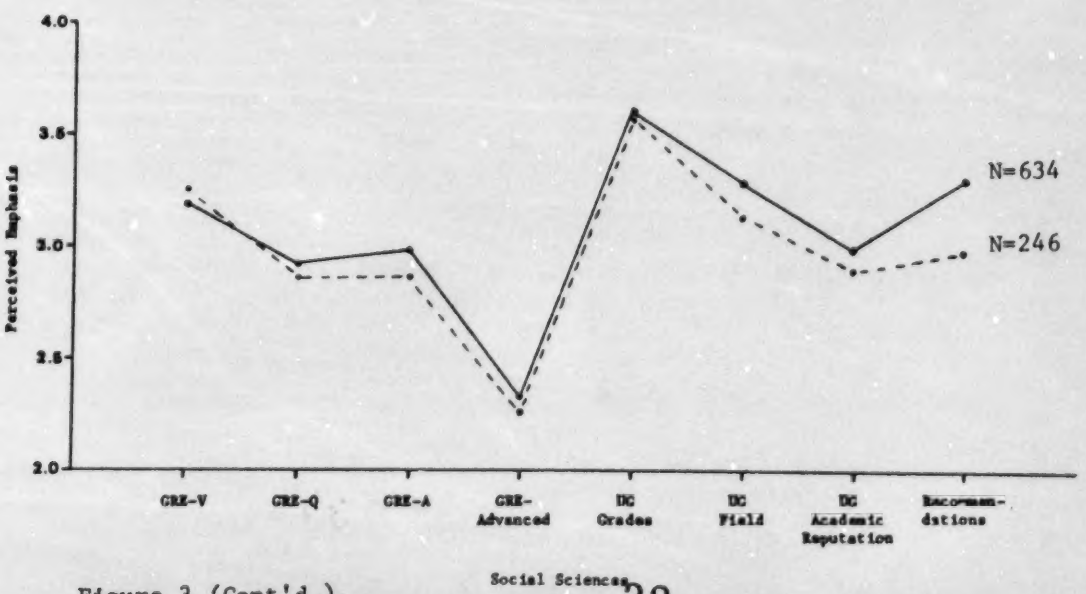
Figure 3. Perceptions, by age and intended field of graduate study, of the emphasis placed on several admissions factors.



Humanities

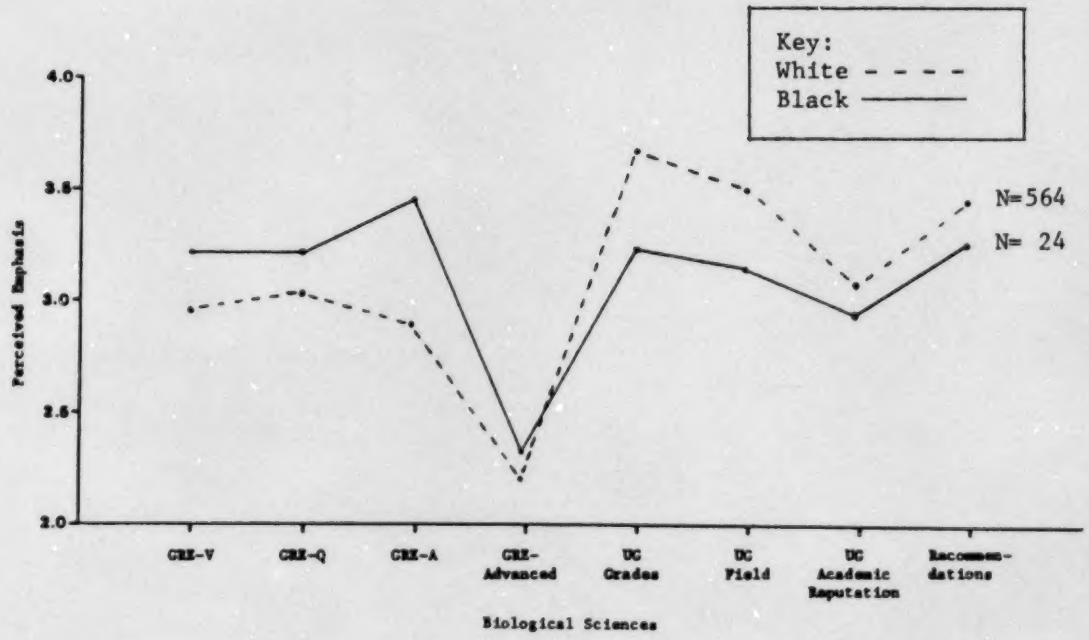


Physical Sciences



Social Sciences

Figure 3 (Cont'd.)



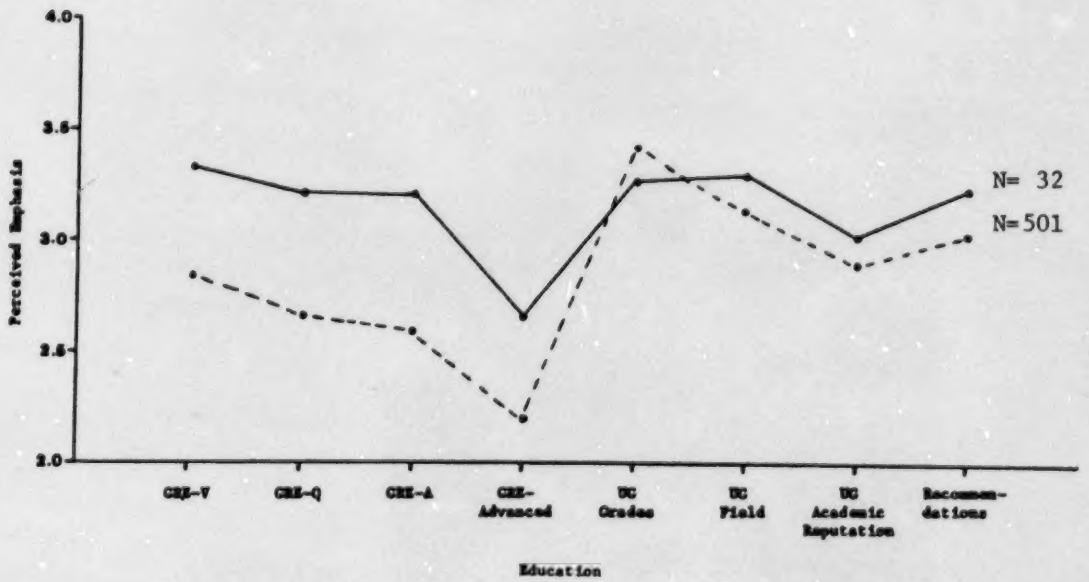
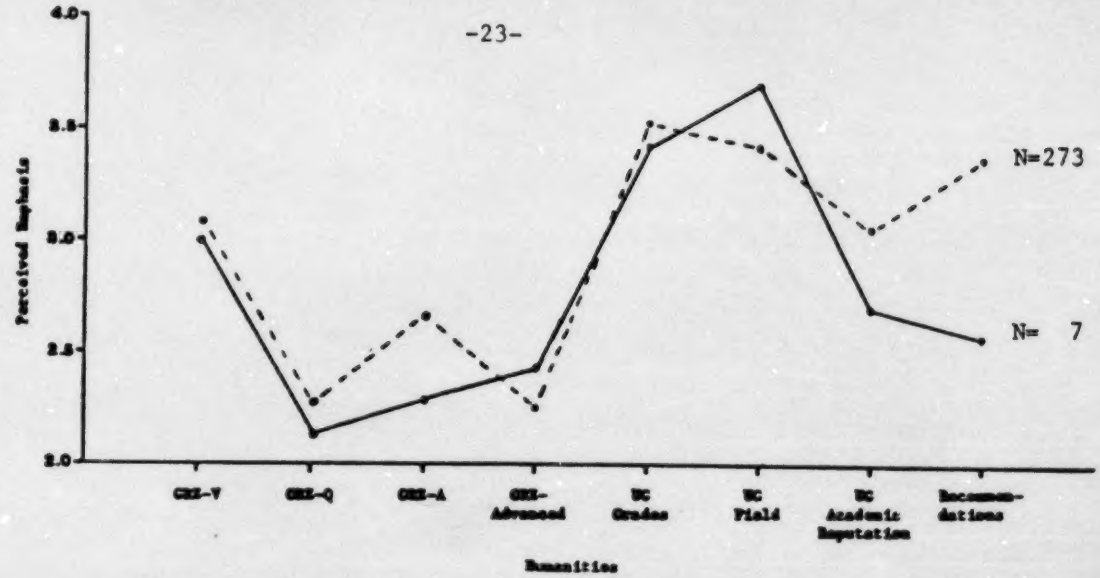
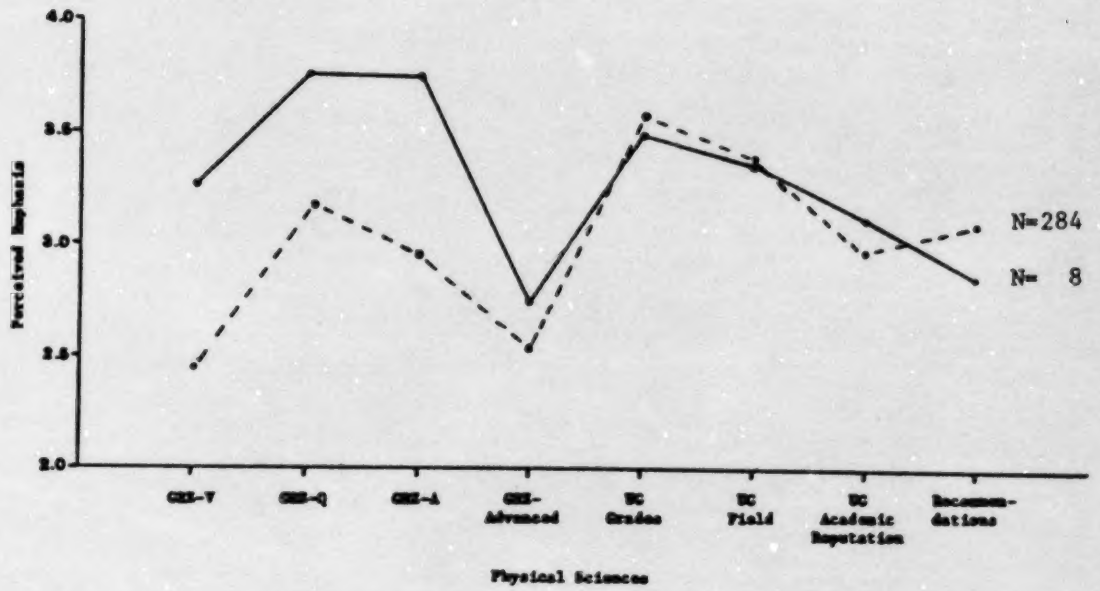


Figure 4. Perceptions, by race and intended field of graduate study, of the emphasis placed on several admissions factors.





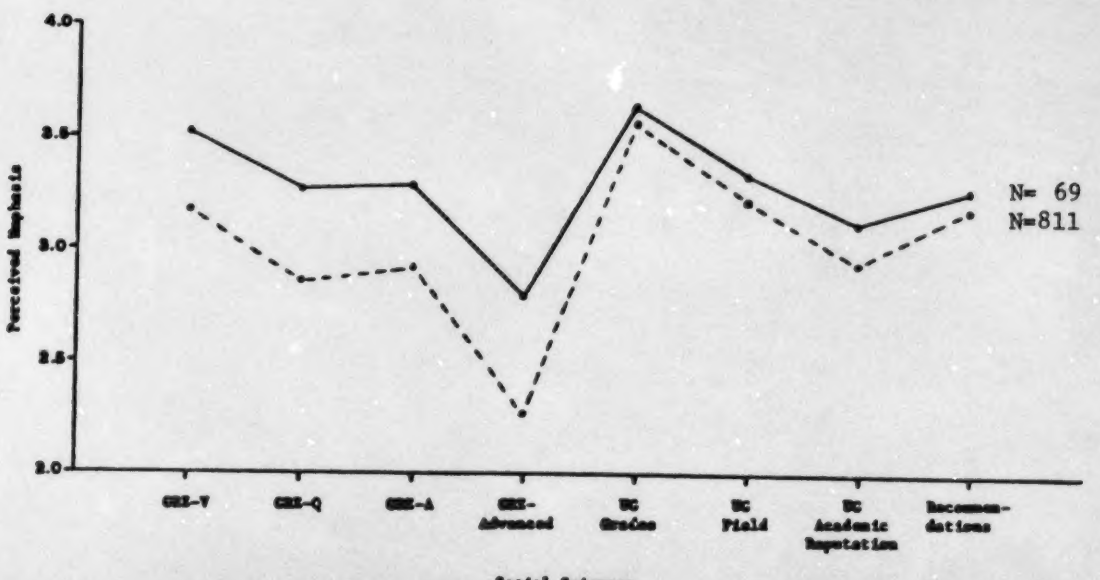


Figure 4 (Cont'd.)

Table 7

Summary of Individual Analyses of Variance for
Each of Eight Dependent Variables

Source of Variance		Dependent Variable: GRE Verbal	GRE Quantitative	GRE Analytical	GRE Advanced	Undergraduate Grades	Undergraduate Field	Undergraduate Academic Reputation	Undergraduate Recommendations
Sex (df=1)	MS	0.01	0.48	0.22	0.01	0.00	0.82	5.78	3.25
	F	0.01	0.63	0.26	0.01	0.00	1.31	8.27**	4.81*
Race (df=1)	MS	8.44	6.54	10.22	2.12	5.92	0.34	0.01	3.41
	F	11.72***	8.71**	12.38***	1.49	15.98***	0.53	0.01	5.05*
Field (df=4)	MS	2.00	4.95	2.95	1.07	3.13	1.20	0.91	1.61
	F	2.77*	6.59***	3.57**	0.75	8.45***	1.90	1.30	2.39*
Age (df=1)	MS	0.47	0.49	0.09	0.01	1.89	0.25	0.19	4.42
	F	0.65	0.65	0.11	0.01	5.11*	0.40	0.27	6.55*
S x R (df=1)	MS	0.61	0.03	0.36	0.42	0.33	0.49	2.41	0.36
	F	0.84	0.04	0.44	0.29	0.88	0.78	3.45	0.53
S x F (df=4)	MS	0.49	0.74	1.40	0.81	1.86	1.35	1.36	0.72
	F	0.69	0.98	1.70	0.57	5.01***	2.15	1.95	1.06
R x F (df=4)	MS	0.34	0.32	1.56	1.38	2.19	1.41	1.15	1.90
	F	0.48	0.42	1.89	0.97	5.93***	2.23	1.64	2.81*
S x A (df=1)	MS	0.28	0.16	0.01	0.01	3.85	0.86	0.55	0.68
	F	0.39	0.21	0.01	0.01	10.39**	1.37	0.79	1.01
R x A (df=1)	MS	1.74	0.18	0.21	0.25	0.72	0.00	0.68	0.00
	F	2.41	0.24	0.26	0.18	1.96	0.00	0.97	0.00

Table 7 (Cont'd.)

Source of Variance		Dependent Variable: GRE Verbal	GRE Quantitative	GRE Analytical	GRE Advanced	Undergraduate Grades	Undergraduate Field	Undergraduate Academic Reputation	Undergraduate Recommendations
F x A (df=4)	MS	0.76	0.61	0.24	1.03	1.73	1.06	1.33	2.56
	F	1.06	0.81	0.29	0.72	4.67***	1.68	1.90	3.79**
S x R x F (df=4)	MS	0.42	0.35	0.59	0.75	2.02	0.98	1.52	1.40
	F	0.58	0.47	0.69	0.53	5.45***	1.56	2.18	2.08
S x R x A (df=1)	MS	0.18	0.16	0.00	0.45	3.84	1.30	0.26	0.08
	F	0.25	0.21	0.00	0.32	10.37**	2.07	0.37	0.13
S x F x A (df=4)	MS	1.44	0.52	0.22	0.88	2.45	1.53	2.51	1.45
	F	2.00	0.70	0.26	0.62	6.63***	2.43*	3.59**	2.14
R x F x A (df=4)	MS	1.14	0.61	0.65	0.90	2.05	1.58	1.54	2.37
	F	1.56	0.82	0.79	0.63	5.54***	2.51*	2.20	3.52**
S x R x F x A (df=4)	MS	1.49	0.49	0.29	0.95	2.74	2.31	3.12	1.47
	F	2.07	0.64	0.35	0.67	7.40***	3.67**	4.46**	2.18

*$p < .05$

**$p < .01$

***$p < .001$

Table 8

Summary of Repeated Measures Analysis of Variance for Perceptions of Admission Factors

Source of Variance	df	MS	F	p	p_G*
Sex	1	1.97	1.13	n.s.	
Race	1	3.56	2.04	n.s.	
Field	4	7.15	4.11	$p<.01$	
Age	1	4.48	2.58	n.s.	
S x R	1	0.00	0.00	n.s.	
S x F	4	1.74	1.00	n.s.	
R x F	4	3.78	2.17	n.s.	
S x A	1	0.04	0.03	n.s.	
R x A	1	0.39	0.22	n.s.	
F x A	4	3.44	1.98	n.s.	
S x R x F	4	1.86	1.07	n.s.	
S x R x A	1	0.60	0.34	n.s.	
S x F x A	4	2.61	1.50	n.s.	
R x F x A	4	5.56	3.19	$p<.05$	
S x R x F x A	4	4.00	2.30	n.s.	
Error	2533	1.74			
Perceptions	7	12.81	20.60	$p<.001$	$p<.001$
P x S	7	1.23	1.97	n.s.	n.s.
P x R	7	4.78	7.68	$p<.001$	$p<.001$
P x F	28	1.52	2.45	$p<.001$	$p<.001$
P x A	7	0.48	0.76	n.s.	n.s.
P x S x R	7	0.71	1.15	n.s.	n.s.
P x S x F	28	1.00	1.61	$p<.05$	$p<.05$
P x R x F	28	0.92	1.49	$p<.05$	n.s.
P x S x A	7	0.91	1.46	n.s.	n.s.
P x R x A	7	0.49	0.78	n.s.	n.s.
P x F x A	28	0.84	1.35	n.s.	n.s.
P x S x R x F	28	0.88	1.41	n.s.	n.s.
P x S x R x A	7	0.81	1.30	n.s.	n.s.
P x S x F x A	28	1.20	1.93	$p<.01$	$p<.01$
P x R x F x A	28	0.76	1.21	n.s.	n.s.
P x S x R x F x A	28	1.26	2.03	$p=.001$	$p<.01$
Error	17731	0.62			

*Based on a significance test suggested by Greenhouse and Geisser (1959) in which degrees of freedom are adjusted by multiplying by ε, an adjustment computed to be .7317 for the data used here.

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